

REMARKS

This amendment responds to the office action mailed November 23, 2005. In the office action the Examiner:

- rejected claims 24-31 and 41-44 as being indefinite under 35 U.S.C. 112, second paragraph;
- rejected claims 16-23 and 37-40 under 35 U.S.C. 102(e) as anticipated by Dieffenderfer et al. (US 5,910,930); and
- rejected claims 16-31 and 37-44 for obviousness-type double patenting in view of US 6,263,448 and US 6,701,446.

After entry of this amendment, the pending claims are: claims 16-31 and 37-44.

Overview of Changes to the Claims

Claims 16, 19 and 20 have been amended to clarify that “clock receiver” is the “clock receiver circuit.” Support is found in previously filed claim 16. These amendments, therefore, do not constitute new matter.

35 U.S.C. §112, 2nd paragraph

In the present Office Action, the Examiner has rejected claims 24-31 and 41-44 under 35 U.S.C. 112, 2nd paragraph as “being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.” In particular, the Examiner indicated that “it is not clear what the phrase ‘a sensing operation,’ ‘sensed during the sense operation,’ and ‘sensing a row of ...’ mean” (p. 2, lines 17-19). The Applicants disagree and traverse.

Referring to the specification of the present application, “... memory operations are broken up into five steps: precharge, sense, transfer, data and close” (p. 5, lines 9-10). Sense refers to “the sense amplifiers in the memory core” (p. 6, line 17) that are used “for a sense operation (also known as a RAS operation” (p. 6, lines 28-29), i.e., reading of memory cells. Claims 24 and 41 are not, therefore, indefinite. Since claims 25-31 and 42-44 include the limitations of their parent claims, these claims are also not indefinite. Removal of this ground for rejection is requested.

35 U.S.C. §102(e)

In the present Office Action, the Examiner rejected claims 16-23 and 37-44 as being anticipated by Dieffenderfer et al. The Applicants disagree and traverse.

Independent claim 16 includes the limitations of a “memory device” that includes “a clock receiver circuit” and “a delay locked loop circuit.” Independent claim 37 includes the limitations of “a method of operating a memory device” including “turning off a delay locked loop circuit in response to the command that specifies the power down mode” and “operating the memory device in a standby power mode, wherein the delay locked loop circuit is turned on in the standby mode.”

Dieffenderfer et al. teaches a “method and apparatus for dynamic control of power management circuitry in a microprocessor” (abstract). The microprocessor 400 in Figure 4 of Dieffenderfer et al. is not the same as a memory device. As shown in Figure 1 in Dieffenderfer et al., the clock generation and control 101 is separate from the unit to be powered down 107. As such, Dieffenderfer et al. does not teach or disclose each of the limitations of the claims 16 and 37. Dieffenderfer et al., therefore, does not anticipate claims 16 and 37. Since dependent claims 17-23 and 38-44 include the limitations of their parent independent claims, Dieffenderfer et al. does not anticipate these claims, either. Removal of this ground for rejection is requested.

Double Patenting

In the present Office Action, the Examiner rejected claims 16-31 and 37-44 for obviousness type double patenting. While applicants respectfully disagree with this rejection, in an effort to expedite the prosecution of the instant application, a terminal disclaimer with respect to the commonly owned US 6,263,448 and 6,701,446 is enclosed. Removal of this ground for rejection is requested.

Because the Terminal Disclaimer submitted herewith renders moot the double patenting rejection in its entirety, Applicants have not considered whether comments pertaining to certain claims of US 6,263,448 and 6,701,446, for example, misconstrue, misinterpret or mischaracterize the pending claims (or specific limitations thereof). Accordingly, no inference or conclusion should be drawn that Applicants agree, in any way, with such comments.

Prior Art Made of Record

Applicants acknowledge the prior art made of record but not relied upon, namely: Ware et al. (US 5,337,285), Townsley et al. (US 5,623,677), Iwamoto et al. (US 5,629,897), Yeoh et al. (US 5,726,650), Yoo et al. (US 5,845,108), Rao (US 5,890,195), Budd (US 5,918,058), Tran (US 5,987,620) and Eto et al. (US 6,037,813) (hereinafter, the "references"). It is not clear what is meant by the Examiner's characterization of these references. However, in order to present a more concise response to the office action, and because the Examiner tacitly acknowledges that the references do not impact the patentability of any of the claimed inventions, Applicants will not comment on that characterization. No inference or conclusion should be drawn that Applicants agree, in any way, with the Examiner's characterization of these references. Indeed, no inference or conclusion of any kind should be drawn from the absence of Applicants' comment pertaining to that characterization.

CONCLUSION

In light of the above amendments and remarks, the Applicants respectfully request that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney if a telephone call could help resolve any remaining items.

Respectfully submitted,

Date: March 23, 2006



Gary S. Williams
MORGAN, LEWIS & BOCKIUS LLP
2 Palo Alto Square
3000 El Camino Real, Suite 700
Palo Alto, CA 94306
(650) 843-4000

31,066

(Reg. No.)